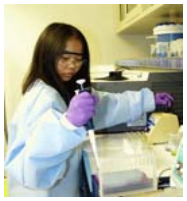
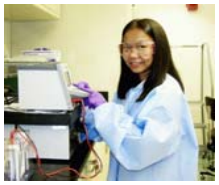
Program Successes

The success of the Program is well established. As of June 2003, 74 high school students have participated in the program. In 2003, the program attracted 40 qualified applicants. Ten RAP students have been accepted into the prestigious North Carolina School of Science and Mathematics. Of the eight seniors in the RAP, four rank in the top 1% of their high school class. At least four students have co-authored peer-reviewed journal articles based on research conducted while working at the EPA, and many students have been hired by EPA in subsequent summers during college. In addition, 100% of those who completed the program entered college–90% majored in either science, math, or engineering with the support of over half a million dollars in s cholarships and grants.





Program alumni in graduate school have tripled in the past 2 years; 100% of the class of 1998 have either either completed graduate school or will within the next year.

EPA scientists who have mentored students in the RAP have been very satisfied.
"... is an outstanding student and excellent scientist-to-be...He was well prepared for his work in a lab, has excellent interpersonal skills, and he interacted in a great way with all my staff and colleagues."

"If I had the chance, I would choose .... again. His attention to detail and problem solving skills are already better than many of the scientists and engineers I have worked with and supervised in industry and in government. ... has a very bright future ahead of him."

To learn more about the *Research Apprenticeship Program for High School Students* and find out how you can participate contact:

Kelly Leovic,
U.S. EPA (MC E205-04)
Research Triangle Park, NC 27711
e-mail: leovic.kelly@epa.gov
919-541-7717

The RAP is supported through funding from EPA's Office of Research and Development in Research Triangle Park, NC. Contributing organizations include:

- National Exposure Research Laboratory
- National Health & Environmental Effects Research Laboratory
- National Risk Management Research Laboratory Air Pollution Prevention & Control Division
- National Center for Environmental Assessment.

The Research Apprenticeship Program for High School Students

A Cooperative Training Program between the U.S. Environmental Protection Agency's (EPA) Office of Research and Development and Shaw University

Research Triangle Park, NC

August **2003**

What is the Research Apprenticeship Program (RAP) for High School Students?

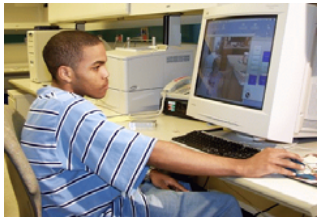
The RAP began in 1990 as a collaborative effort between EPA's Office of Research and Development in Research Triangle Park, NC and Shaw University in Raleigh, NC. The program addresses the under representation of minorities in the fields of science and engineering.

The RAP encourages participating high school students to pursue advanced degrees in math, science, and engineering by:

- enriching the scientific and mathematic concepts that students study in the classroom
- providing the opportunity to interact with scientists
- developing effective scientific research and technical skills; and,
- enhancing students' motivation, self-confidence, and desire to achieve

How Does the Research Apprenticeship Program Develop the Students?

The 4-year program has two sessions: the academic year and the summer program. During the academic year, students attend classes, workshops, and monthly interactive presentations by EPA scientists three Saturdays each month at Shaw University.



During the summer, rising 9th, 10th, and 11th grade students attend 6 weeks of classes, workshops, and field trips coordinated by Shaw University. The rising seniors apprentice under EPA mentors at EPA research facilities during the summer. This intensive experience immerses students in scientific research and culminates in a research forum during which each student presents their work to an audience that includes the mentors, other students in the program, students' parents, and EPA scientists.

Students accepted into the RAP must demonstrate superior ability in math and science, live in Wake County, and be in grades 9 through 12. In 2003, there were 40 applicants for ten positions. Students in the RAP must maintain high academic performance in high school and strict Program attendance standards**.**

How Can You Be Part of the Research Apprenticeship Program?

The success of this program comes from the EPA scientists and engineers who volunteer their time and talents to help train these ambitious students. Ways that you can participate are:

Mentor a student - Each summer, seniors in the Program come to EPA to serve as interns with EPA mentors. Students work on "hands-on" projects, typically in the laboratory or on a computer, that can be completed during 6 weeks. Mentors have been impressed with the high level of performance and the enthusiastic energy brought into their labs and offices by RAP students. Students are paid a stipend under the cooperative agreement so there are no costs to EPA or FTE concerns. The students are under 18 years old so they are only permitted to work in EPA-RTP laboratories that have a chemical safety level (CSL) of CSL 1 or CSL 2.

Give a scientific presentation - Hands-on scientific presentations are given by EPA scientists and engineers on Saturday mornings during the academic year.

Review student applications - Student applications for rising 9th graders are reviewed each April in a half-day review session with representatives from EPA, academia, and the private sector.